

REMARKS

Claims have been amended. Claim 149 has been added. No new matter has been added. Claims 1-60, 83, 89-98, 110, 115 and 120-148 were canceled. Claims are currently pending in this application.

Applicant graciously acknowledges the Examiner's indication that claims 116-119 contain allowable subject matter. Claim 116 has been rewritten in independent form. Accordingly, Applicants believe that claim 116 is in a condition for allowance. Claims 117-119 depend from claim 116.

Claims 99 and 113-115 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Campbell et al., U.S. Patent Application Publication No. 2004/0042259 (Campbell). This rejection is respectfully traversed.

As amended, independent claim 99 recites a "method of forming a memory element" comprising, in part, "forming a second chalcogenide glass layer over the first metal-containing layer" "forming a second metal-containing layer over the first chalcogenide glass layer" and "electrically coupling first and second electrodes to said first and second chalcogenide glass layers, wherein the second electrode is formed in contact with said second metal-containing layer."

Campbell relates to a resistance variable memory element. According to Campbell, the resistance variable memory element includes alternating layers of chalcogenide glass and metal-containing layers. According to Campbell, the stack starts and ends with a chalcogenide glass layer. Campbell at page 4, paragraph [0043]. Accordingly, the electrodes of Campbell's memory element are in contact with chalcogenide glass layers. Therefore, Campbell does not disclose all limitations of

independent claim 99. For at least these reasons, withdrawal of this rejection is respectfully requested.

Claims 145-148 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kozicki, U.S. Patent Application Publication No. 2003/0137869 (Kozicki). Claims 145-148 have been canceled. Therefore, this rejection is moot.

Claims 61-82, 84-89, 91-109, 111-112 and 144 stand rejected under 35 U.S.C. § 103(c) as being unpatentable over Kozicki. This rejection is respectfully traversed.

Claims 98, 90, 92-98 and 144 have been canceled.

As amended, independent claim 61 recites a “method of forming a memory element” comprising, in part, “forming a first resistance variable material layer in contact with the first electrode; forming a first metal-containing layer adjacent said resistance variable material; forming a metal layer in contact with the first metal-containing layer” and “forming a second electrode in contact with the metal layer.”

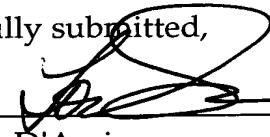
Kozicki relates to a microelectronic programmable structure including an ion conductor and a plurality of electrodes. According to Kozicki, the microelectronic programmable structure includes an ion conductor, which can be a chalcogenide glass, between first and second electrodes. Kozicki also teaches that a barrier layer, which can be a metal-containing or metal layer, can be between the first and second electrodes and in contact with one of the electrodes. Kozicki, however, does not teach or suggest “forming a first metal-containing layer adjacent said resistance variable material; forming a metal layer in contact with the first metal-containing layer” and “forming a second electrode in contact with the metal layer,” as recited by independent claim 61. Further, Kozicki teaches that a microelectronic programmable structure includes only

one ion conducting layer. Therefore, Kozicki does not teach or suggest "forming a second chalcogenide glass layer over the first metal-containing layer," as recited by independent claim 99. For at least these reasons, withdrawal of this rejection is respectfully requested.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,



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